

In the Specification

Please insert the following replacement paragraphs in which previously unknown Serial Numbers are supplied:

[0023] Reaction cuvette load station 61 and reaction vessel load station 63 are respectively positioned proximate outer cuvette carousel 14 and inner vessel carousel 16 and are adapted to load reaction cuvettes 24 into cuvette ports 20 sideways as described later and reaction vessels 25 into vessel ports 22 using for example a translatable robotic arm 65. In operation, used cuvettes 24 in which an assay has been finally conducted, are washed and dried in a wash station 67 like disclosed in co-pending application Ser. No. 10/623,360 assigned to the assignee of the present invention. Subsequent assays are conducted in cleaned used cuvettes 24 unless dictated otherwise for reasons like disclosed in co-pending application Ser. No. 10/318,804 assigned to the assignee of the present invention. Cuvette unload station 59 is adapted to remove unusable reaction cuvettes 24 from cuvette ports 20 again using a translatable robotic arm 65 like seen on load stations 61 and 63.

[0024] In order to implement the present method for resupplying assay reagents and calibration solutions, analyzer 10 includes a single, bi-directional linear container shuttle 72 illustrated in FIG. 6 and adapted to remove reagent containers 30 and calibration vial containers 30A from a container loading tray 29 having a motorized rake 73 that automatically locates containers 30 and 30A at a loading position beneath container shuttle 72. Shuttle 72 is further adapted to dispose a reagent container 30 or a calibration vial container 30A into slots in at least one slotted reagent container tray 27T or 28T within reagent storage areas 27 or 28, respectively. In a similar fashion, shuttle 72 is even further adapted to remove reagent containers 30 or calibration vial containers 30A from reagent container trays 27T and 28T and to dispose such reagent containers 30

or calibration vial containers 30A into either of two concentric reagent carousels 26A and 26B within reagent storage area 26. Shuttle 72 is also adapted to move reagent containers 30 and calibration vial containers 30A between the two concentric reagent carousels 26A and 26B. As indicated by the double-headed arc-shaped arrows, reagent carousel 26A may be rotated in both directions so as to place any particular one of the reagent containers 30 or calibration vial containers 30A disposed thereon beneath reagent aspiration arm 60. Although reagent carousel 26B may also contain reagent containers 30 and calibration vial containers 30A accessible by reagent aspiration arms 60 and 62, carousel 26B is preferably designated only for storing excess inventory of reagent containers 30 and calibration vial containers 30A. Any one of the reagent containers 30 disposed in reagent container trays 27T and 28T may be located at a loading position beneath container shuttle 72 or at a reagent aspiration location beneath aspiration and dispensing arms 61 and 62, respectively, by reagent container shuttles 27S and 28S within reagent storage areas 27 and 28, respectively. Reagent aspiration arms 60 and 62 are shown in dashed lines to indicate that they are positioned above the surfaces of reagent containers 30 inventoried in carousel 26B, and reagent container trays 27T and 28T, respectively. Reaction cuvettes 24 supported in outer cuvette carousel 14 are also both shown in dashed lines to indicate that they are positioned above the surfaces of reagent containers 30. A container shuttle system like seen in FIG. 6, is described in co-pending U. S. Patent Ser. No. 10/623,310, assigned to the assignee of the present invention.

[0025] Container shuttle seen in FIG. 7 is adapted to automatically compensate for unknown changes in length of a drivebelt 72B driven by motor 72M by an automated tensioner 72T, disclosed in co-pending application Ser. No. 10/623/311 and assigned to the assignee of the present invention, and adapted to maintain a constant tension on the drivebelt 72B regardless of rapid changes in its driving direction so that reagent containers

30 and calibration vial containers 30A attached thereto by clamps 72C may be accurately positioned along the direction of drivebelt 72B, as indicated by the double-ended arrow, and disposed at their intended location beneath reagent container shuttle 72 or within storage areas 26, 27 or 28 as drivebelt 72B wears. Reagent container shuttles 27S and 28S are similar in design to one another, and as seen in FIG. 8, include a reagent container tray 28T secured to one leg of a drivebelt 28B so that tray 28T is free to be driven to and from along the direction of drivebelt 28B, as indicated by the double-ended arrow. Consequently, reagent containers 30 within slots in tray 28T may be automatically positioned at a pick-up location beneath container shuttle 72.